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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/625,398	03/27/96	STELMAN	B HELLO-00695

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EXAMINER

SAINT-SURIN, J

ART UNIT	PAPER NUMBER
2742	6

DATE MAILED: 01/05/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/625,398

Applicant(s)  
Bruce W. Selman

Examiner  
Jacques M. Saint-Surin

Group Art Unit  
2742



☒ Responsive to communication(s) filed on Oct 20, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-27 and 32-40 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☒ Claim(s) 32-40 is/are allowed.

☒ Claim(s) 1-27 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2742

*Election/Restriction*

1. Applicant's election without traverse of claims 28-31 in Paper No. 5 is acknowledged.
2. Claims 28-31 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made **without** traverse in Paper No. 5.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Frick et al. (US Patent 5,473,676).

The claims are directed to a telecommunications interface system that automatically configures an accessory having a predetermined number of electrical accessory contacts to appropriately interface with a telephone base unit having two electrical output contacts that can be read in Frick et al. as follows:

Frick et al. disclose a telephone handset interface that is inserted between telephone handset and base for automatic switching between voice and data modes of communication. The interface port having the predetermined number of accessory contacts is shown in Fig. 1(a) as

Art Unit: 2742

interface circuitry 20 which is inserted along the pair of speaker lines 15, 13 and the pair of microphone lines 16, 14 that would otherwise normally extend from the telephone base 10 to the handset speaker 11 and the handset microphone 12.

The signal processing circuit having two signal inputs coupled for receiving the input signal from the interface port is shown in Fig. 1(a) as processor 30 which controls the modem 24 in operation voice mode and initiate the data mode in operation data mode.

The directing circuit coupled between the interface port and the signal processing circuit for automatically electrically coupling the output contacts to the signal inputs is shown in Fig. 1(a) as modem 24 which is coupled between interface circuitry 20 and processor 30.

Regarding claim 2, Frick et al. disclose a data receive block 256 that can be configured by the processor 30 and modem controller 246 to selectively operate at any number of different data rates. The interface circuitry 20 also includes means to automatically switch from voice to data mode whenever the modem desires to transmit or receive data. See: col. 7, lines 44-49. The interface circuitry 20 further includes a number of relay switches to selectively couple the telephone handset 11, 12 and base 10 for voice communications (voice mode), and to selectively couple a modem 24 to the telephone base for data communications (data mode). See: col. 5, lines 9-14. The interface circuitry 20 is also connected to the modem 24 by means of a jack J1. For a two-wire modem, the tip and ring connectors are connected to the interface circuitry when dealing with a two-wire modem. It should be expressly understood that a three-wire or four-wire

Art Unit: 2742

modem could be readily substituted with only minor corresponding changes to the interface circuitry 20. See: col. 5, lines 43-51.

Regarding claim 3, Frick et al. teach that in voice mode, the processor 30 controls the modem 24 to remain in an on-hook state. The current sensor in the interface circuitry senses the on-hook status of the modem and maintains the relay switches S1 and S2 in their released positions shown in Fig. 1(b). This directly couples the handset speaker lines 13 to the base speaker lines 15 and couples the handset microphone lines 14 to the base microphone lines 16, thereby providing normal voice communications between the telephone handset and base. See: col. 8, lines 12-21.

Regarding claim 4, the decisional circuit is met in Frick et al. in step 302 wherein the processor determines whether the user has indicated a desire to transmit data by pressing a predetermined key or clicking on a predetermined area of the display screen using a mouse, as provided by the application layer. If so, the processor 30 directs the modem 24 to go off-hook in preparation for transmitting data. See: col. 8, lines 57-62.

Regarding claim 5, the interface circuitry 20 of Frick et al. include a differential amplifier enabling a modem to monitor the telephone line for a preselected start signal indicating that the remote station intends to transmit data. Reception of a start signal triggers the modem 24 to switch from voice mode to data mode in preparation for transmitting data to be supplied by the processor 30, such as screen display, fax transmission, or data file. In either case, the modem

Art Unit: 2742

changes from an on-hook state to an off-hook state when entering the data mode. See: col. 5, lines 14-24.

Regarding claim 6, Frick et al. teach in Fig.2 that the signal level at the receive port of the modem is regulated by an automatic gain control amplifier 248. The analog telephone signal is demodulated by the data receive block 256 to deliver corresponding digital data to the modem's controller 246. See: col. 7, lines 40-44.

Regarding claim 7, the reference circuit is met in Frick et al. as start tone defined by frequencies of 2312.5 Hz and 2912.5 Hz for approximately 200 msec. See: col. 7, lines 53-56.

Regarding claim 8, the means for manually controlling the output automatic gain adjusting circuit is taught in Frick et al. wherein Gutzmer discloses a manual switch for insertion between a telephone handset and base to accommodate between both voice and data transmission.

Regarding claims 9 and 10, Frick et al. disclose an automatic gain control amplifier 248 to regulate the signal level of the modem 24.

Regarding claim 11, Frick et al. disclose relay switches shown in Fig. 1(b) that correspond to the voice mode of operation in which the base microphone lines 16 are directly coupled to the handset microphone lines 14 and the base speaker lines 13 to provide normal voice communications via the handset 11, 12. In voice mode, the base speaker lines are also coupled through differential amplifier circuitry U2, U3 and U4 to the modem jack J1. See: col. 5, lines 55-64.

Art Unit: 2742

Regarding claim 12, Frick et al. suggest that it should be understood that other equivalent units could be substituted for the handset 11, 12 such as a headset used by telephone operators or a teleconferencing speaker unit used for conference calls. See: col. 4, lines 52-56.

Regarding claim 13, the handset is met in Frick et al as telephone handset 11, 1

Regarding claim 14, Frick et al. disclose a differential amplifier circuitry that provides four-wire to two-wire conversion of the telephone signals for the modem 24 and also enables the tone detectors 242 and 244 in the modem 24 to continually monitor the telephone line for the start sequence. See: col. 5, lines 64-67.

Regarding claim 15, Frick et al disclose that in voice mode, base speaker lines 15 which are also coupled through differential amplifier circuitry U2, U3 and U4 to the modem jack J1.

Regarding claim 16, it is rejected for the reasons set forth for claim 6.

Regarding claim 17, it is rejected for the reasons set forth for claim 8.

Regarding claim 18, Frick et al. disclose Frick et al. disclose a differential amplifier circuitry that provides four-wire to two-wire conversion of the telephone signals for the modem 24 and also enables the tone detectors 242 and 244 in the modem 24 to continually monitor the telephone line for the start sequence. See: col. 5, lines 64-67.

Regarding claim 19, it is rejected for the reasons set forth for claim 16.

Regarding claim 20, Frick et al. tech that the analog telephone signal is demodulated by the data receive block 256 to deliver corresponding digit data to the modem's controller 246.

Art Unit: 2742

Regarding claim 21, Frick et al. disclose an interface circuitry that provides both gain and low-pass filter functions for receiving data. Active circuitry provides true signal power gain and not simply a voltage gain that is available when using a transformer.

Regarding claim 22, it is rejected for the reasons set forth for claim 16.

Regarding claim 23, it is rejected for the reasons set forth for claim 8.

Regarding claims 24 and 25, Frick et al. disclose loop current and voltage presented by the interface circuitry 20 through Q1 to the modem 24 emulates a conventional central office loop. In particular, the interface circuitry uses a current source that delivers about 20 mA into loads that can vary from 0 ohm to about 500 ohms. Typical off-hook characteristics require the modem to sink at least 20 mA with not more than 8 volts across the modem's tip and ring connectors. See: col. 6, lines 35-43.

Regarding claim 26, the voice accessory is met in Frick et al. as handset earpiece 11 and handset microphone 12.

Regarding claim 27, the data accessory is met in Frick et al. as processor 30.

***Allowable Subject Matter***

5. Claims 32-40 are allowable over the prior art of record.



Art Unit: 2742

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dale et al. (US Patent 5,621,731) disclose a private exchange for ISDN.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques M. Saint-Surin whose telephone number is (703) 305-4760. The examiner can normally be reached on Mondays through Thursdays from 8:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krista M. Zele, can be reached on (703) 305-4701. The fax phone number for this Group is (703) 308-5403.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

Serial Number: 08/625398


Page 9


Art Unit: 2742

**Or:**

(703) 305-3900 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington. VA., Sixth Floor (Receptionist).

  
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Jacques M. Saint-Surin  
November 21, 1997

  
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PRIMARY EXAMINER  
GROUP 2800-  
2742